

## The Application of Deep Ecology in Cuba

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What can we learn about the application of deep ecology's principles from the Cuban experience? Cubans are so pre-occupied with making a living that they seldom discuss ecology, however, when asked, most will say they support government policies that are intended to avoid the destruction of their environment. The lifestyle of Cubans certainly leaves a smaller ecological footprint than does the lifestyle of people in western, industrialized nations, but it is often painful to see that even official government policy to safeguard the environment is frequently far down the line of priorities. However, much has been accomplished in Cuba, and the potential for actualizing the principles of deep ecology may begin with statements to elucidate the challenges and possibilities.

Cubans have a history of implementing new, alternative policies. Rural areas are well-serviced, even mountainous areas without roads. Unfortunately, in recent years, the country appears to be stagnating, and it is becoming increasingly difficult to implement even small initiatives. There is almost no economic flexibility. Because Cuba does not want to descend into the political and economic chaos experienced by Eastern Europe in 1989, or by their Soviet mentors in the 1990s, the country has been inching through the "Special Period" since 1990 in an attempt to avoid similar mistakes. Cubans are quite serious about their role as the last bastion of genuine communism.

Some will argue that Cubans lived in a fool's paradise for 30 years while the Soviets supplied oil, grain and other products as an unreasonable economic subsidy in exchange for sugar cane and a toehold in the American hemisphere. They say Cuba never really had to manage its economy efficiently, and, without the Soviets, its social and economic institutions are collapsing too. Others are impressed that those institutions have survived the Soviet collapse and the American embargo for so long. They see the Cubans as shrewd dealers in a tough international political climate who appropriately took advantage of geopolitics from 1960 to 1990. Since 1990, in a world economy not designed to coddle socialists, Cuba has continued to maintain a society of accessible health care and universal education.

Because Cubans inherited an inflexible economic system from the Soviets, they have yet to effectively solve even relatively simple problems of production and distribution with entrepreneurial incentives that would not represent capitulation to capitalist dogma. For example, small farmers, with a stake in their land, could be expected to produce a diversity of organic food crops, whereas the large, state sugar-cane farms have difficulty responding to ecological imperatives. Large farms in North America are similarly afflicted. A preoccupation with avoiding all forms of capitalism may be as much of a hindrance to the

greening of a communist society as the addiction to capitalism is a hindrance to the greening of Western society. One of the greatest challenges in the agrarian culture of Cuba is that so few young people choose to apply their training and intelligence to the noble profession of agriculture<sup>1</sup>. We have a similar problem in North America. In Cuba, as in North America, our respective systems should not preclude the engagement of our youth with the ecosystem for the sustainable production of food. We need their active, long-term commitment if the fundamental problems of agriculture are to be addressed.

The Cuban government has survived numerous tough challenges since 1959, especially since the Soviet Union collapsed in 1990 and the Helms-Burton Act extended the US economic embargo of Cuba to all companies dealing with the US. Having lost their economic security blanket, the Cubans are justifiably struggling to ensure access to basic goods and services, and, at the same time, maintaining a vibrant social system. The Special Period was perhaps worst in 1993 and 1994, but shortages continue and there is still an atmosphere of insecurity. Although the education and health systems are remarkably capable of providing good service under severe constraints, it is frustrating to meet so many Cubans who are suffering because they can't have access to common drugs controlled by American pharmaceutical companies, subservient to the Helms-Burton Act. There are many knowledgeable doctors, even in rural areas, but their facilities are deteriorating and their supplies are shrinking. However, out of the crisis, opportunities are becoming evident.

Cubans are now exploring acupuncture, homeopathy, naturopathy and other options to sustain health. If they can't always get access to drugs, they find other ways. Some Cubans believe that their well-developed American-European medical system must be recovered, but others are busy with alternatives.

Agriculture is in a similar situation to that of medicine. From the 1959 revolution until 1989, sugar was the main commodity (accounting for more than 75% of all exports) that Cuba produced in exchange for Eastern bloc goods. Cuba relied heavily on imports of wheat (100%), beans (90% – 99%), oil and lard (68% – 94%), rice (50%), and milk and dairy products (38%) to feed their population, resulting in a tenuous food security condition. Cuba depended on the Soviet Union and Eastern Europe for imports of petroleum, chemicals, fertilizer, machinery and various components of animal feeds. With high inputs of imported grain, the dairy industry had production levels of 15 to 20 litres of milk per cow per day. High levels of fuel, fertilizer and chemicals were available to produce other crops.<sup>2</sup> Since the breakup of the Soviet Union in 1989, Cuban imports declined precipitously. From 1989 to 1992, the decreases were: petroleum 53%, fertilizer 77%, pesticides more than 62%, and animal feeds 70%.<sup>3</sup> Dairy producers found they must shift to the use of local, renewable resources, and there are other encouraging developments.

*Organoponicos* are urban gardens that utilize horse manure, leaves and biological controls to produce fresh, organic vegetables. For example, in the city of

Cienfuegos, many horses are used to pull wagons as a means of transportation. The manure is captured on canvass sheets attached to the harness and is later composted with leaves and other organic matter from the area. The compost is well mixed with soil in raised beds, located in abandoned urban areas or, often, in former parking lots that are not required with less fuel available for cars. The vegetables are watered in the dry season and pests are controlled with extracts from the leaves of neem trees or with other biological controls. Most *organoponicos* provide a living for three to four people, who sell their fresh, organic produce on site. Some customers, not formerly familiar with organic food, are now asking for organic produce and hoping to continue with it.<sup>4</sup>

I propose that there is a practical opportunity to develop the Platform Principles<sup>5</sup> of the deep ecology movement in Cuba. The principles are listed below in italics with a comment regarding the applicability of each to Cuba.

1. *“The well-being and flourishing of human and non-human life on Earth have value in themselves. These values are independent of the usefulness of the non-human world for human purposes.”*

Given that Cuba is an island nation which must ultimately rely on its own resources, there is a sense that all parts of the island are valuable and part of the coexistence of humans and non-humans. Cubans are as proud of their surroundings as they are of their own human achievements, however, given the aggressive American initiatives directed against them, they still have a precarious sense of national security and may need to feel less threatened before earth-values can become independent of the usefulness of the non-human world. Landscapes would probably be sacrificed in defensive actions. Nevertheless, a government committed to the principles of deep ecology might have considerable moral suasion within the UN, and attacks on protected ecosystems so close to home, I suspect, would not be popular with the American public. Cubans will respond to the support and appreciation of deep ecologists for the Cuban project. They have been greening by necessity but, with support, can turn their project to a model of social and environmental possibilities for a world addicted to competition and consumption.

2. *“Richness and diversity of life forms contribute to the realizations of these values and are also values in themselves.”*

In Cuba, there is not as much evidence to support this principle as I would like to see, especially given that monocropping of sugar cane dominates the landscape. This is a major challenge that must be addressed. However, small farms and reserved wilderness areas do have diverse life forms and they are valued. The days of large Soviet enterprises are gone, and, as Cubans try to distance themselves from this legacy, examples of more diverse agricultural systems and natural systems are emerging. Current research by F. Funes at the Institute of Research on Pastures and Forages, near Havana, is showing that small, diversified farms are not only more ecologically resilient but that they are also more

productive than monocropped farms.

The *organoponicos*, noted above, are diverse in both space (numerous species in areas of less than one ha) and in time (several rotations in each bed per year), in order to facilitate organic production.

3. *“Humans have no right to reduce this richness and diversity except to satisfy vital human needs.”*

The challenge for Cubans is to meet vital needs without too much reliance on extractive sugar-cane crops to provide cash to buy essential foods, such as beans and milk. There is security in producing a predictable crop with well-established societal and physical infrastructure in a capricious world market. Some Cubans argue that they must sacrifice diversity to urgently meet current, vital, human needs, but others recognize opportunities for promoting diversity, thereby enhancing the provision of those vital needs. New models of agro-ecological farms and cooperatives are being built, *organoponicos* are increasing, and milk is being produced on farms with pastures and multiple-cropping systems. Perhaps more wilderness areas will be set aside, even if they are seen as buffers to prevent attack from abroad.

4. *“The flourishing of human life and cultures is compatible with a substantial decrease of human population. The flourishing of non-human life requires such a decrease.”*

There is currently a very responsible attitude regarding family planning in Cuba, however, it is difficult for any government to publicly promote a program of population decrease. Also, because of an uneasiness about their aging population, many would like to see the birth rate increased. The potential for an effective population policy, and an effective response from Cubans, rests in their investment in education. Cuba has had a policy of educating all children and as many women as men have benefited from higher education, a clear predictor of decreasing population growth rates.

5. *“Present human interference with the non-human world is excessive and the situation is rapidly worsening.”*

Cubans seem to micro-manage everything, probably as a result of the insecurity from a potential American attack and their legacy of long-term Soviet influence. It is doubtful that they would accept non-interference with parts of their land as a long-term, viable strategy. Furthermore, to gain foreign exchange, tourism is being expanded at an alarming rate. Many sensitive coastal areas are at risk. To establish havens from human interference, Cuba needs international support and assurances of national security. Nevertheless, Cubans have increased organic production in agriculture and are experimenting with permaculture, a relatively non-disruptive method of food production modelled on natural systems.

6. *“Policies therefore must be changed. These policies affect basic economic, technological and ideological structures. The resulting state of affairs will be deeply different from the present.”*

Policies are changing in Cuba, not only to prevent future instability, but to continue to demonstrate that the revolution was an enduring historical development that can adapt to progressive priorities. Demonstrating that the Cuban government can adopt and implement policies seen as antithetical to US policy, in itself, could be the driving force for policy change. Policy change could also come as a result of more recognition that current achievements in biological systems, initiated by necessity, have the potential to improve both human and ecosystem well-being. Cuba has been a model for positive change in many developing countries and has an international reputation to uphold in this regard. Cubans have adapted radically in the past and can do so again. They have a remarkably civil society, free of excess violence, and with available health care and education, in spite of their many political and economic challenges. The current arguments about the excessive costs of health care and education in Canada and the US ring hollow when compared to the priority given to these sectors in cash-starved Cuba. Cubans have a societal and cultural imprint that could be the essential ingredient to actually adopt and implement effective policies.

7. *“The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.”*

Cubans are very proud of their current high quality of life, achieved in spite of much international opposition since 1959. The infant mortality rate is 9.5 per 1,000 live births, life expectancy is 75.7 years, and there are only 207 inhabitants for each doctor.<sup>7</sup> They rightly criticize excesses of consumption in capitalist societies and believe that they can continue to develop a community life of increasing quality. Western societal values, as demonstrated by increasing numbers of tourists, are a foil to the educational, health, cultural and sociological (strong family support systems) achievements of Cubans that leave a relatively small ecological footprint. Many young Cubans aspire to the bigness of an American lifestyle, yet there is an inherent pride in their accomplishments of realizing great values. This smouldering pride can be fanned into flames of action to preserve these values by appreciation from allies of Cuba, and by recognizing the disintegration of systems that are tenuously suspended by wasteful lifestyles of bigness. Cubans of all ages respond very positively to assertions that many North Americans will be coming to them for advice about sustainable technologies and strategies in the near future. Their hand has been forced sooner than ours, and when we finally do face our “special period,” it may be much worse.

8. *“Those who subscribe to the foregoing points have an obligation to try, directly or indirectly, to implement the necessary changes.”*

Deep Ecologists should consider Cuba because it is a society in which notable social achievements have been accomplished within a short time and in spite of monumental pressure. Cubans know how to live collectively, with impressive personal security, even now, after so much economic hardship, and they are knowledgeable in all areas of the sciences and arts. Cubans have three essential ingredients that could help them to successfully adopt and implement ecological principles: 1) because of isolation from much of the world market, they have the necessity to live with few fossil fuels, pesticides, and other industrial inputs; 2) they are well-educated about holistic science, ecosystems, and producing within biological constraints; and 3) they have a collective memory of a recent historical precedent for implementing progressive policies that resulted in a quantum leap of life quality for most of the population.

There are also many reasons for the Cuban government not to adopt or implement deep ecology movement principles, but to succeed in our efforts as deep ecologists, we have “an obligation to try, directly or indirectly, to implement the necessary changes.” I would suggest that we do so wherever we recognize opportunities. Cuba has been a model of social change against a bleak background in much of Latin America, and, perhaps, it could be the first developing nation to struggle with the practical, political implementation of deep ecology principles. They deserve our encouragement and assistance. If a small, anti-capitalist, island nation like Cuba cannot find a place for environmental egalitarian values, what does that say about the conditions for those values to take root at all?

## **Conclusion:**

The Cuban Revolution was very much a human struggle to overthrow the oppression of many labourers and students. Despite current dissatisfaction, few Cubans want to risk the erosion of the Triumph of the Revolution. If the deep ecology movement principles can be perceived as enhancing the original objectives of the revolution, and as contributing to an even further development of humanity to the point where humans can choose to be as generous to their environment as they have been to one another, then perhaps, with appropriate assistance and measures to reduce threats to their security, even practical Cubans will support them.

## Endnotes

1. L. Garcia, Instituto Superior de Ciencias Agropecuarias de la Habana, pers. comm.
2. R. Pratel Olite, University of Cienfuegos, pers. comm.
3. Rosset, P.M. and M. Benjamin, (eds.) 1993. *The Greening of Cuba's Agriculture*. Ocean Press, Albourne, Australia.
4. A.R.Socorro Castro, University of Cienfuegos, pers. comm.
5. Drengson, Alan R. 1997. "An Ecophilosophy Approach, the Deep Ecology Movement and Diverse Ecosophies." *The Trumpeter* 14(3): 110-111.
6. A.R.Socorro Castro, University of Cienfuegos, pers. comm.
7. Mendez Tovar, Carlos. 1997. *Democracy in Cuba?* Instituto Cubano del Libro, Habana, Cuba. pp. 59-65.

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